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Monterey
Open Space & Recreation Plan

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in cooperation with

Berkshire Regional Planning Commission
&
Town of Monterey

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Monterey Open Space & Recreation Plan

Table of Contents

SECTION 2. INTRODUCTION

A. Statement of Purpose

Land is one of the most precious assets our community possesses. How we use it shapes our town's character and vitality. Monterey is fortunate because its rural character and scenic beauty--the qualities that appeal to so many of us—remain largely intact. This is due in part to conservation efforts by state environmental agencies and private non-profits, which have permanently protected nearly 40% of our town. Meanwhile revisions to Monterey's Zoning Bylaws have helped to safeguard water quality and scenic ridgelines by regulating building and development. Still, Monterey residents acknowledge the need to make our bylaws more relevant to current pressures and to reflect new information. We strongly support efforts to ensure the future of Monterey's rural identity. At present, the greatest threats we face are from (1) development that is incompatible with the town's character, and (2) outside economic pressures that could erode our control over the town's future. Without careful planning and zoning, the fabric of our community and the environment we cherish could suffer irreversible damage.

B. Planning Process & Public Participation

In 2001, using funds from Massachusetts Executive Office of Environmental Affairs (Executive Order 418) and The Trustees of Reservations' Highlands Initiative, the Monterey Selectboard voted to update the town's 1990 Open Space and Recreation Plan (OSRP). The plan was completed with assistance from the Berkshire Regional Planning Commission (Bryan Boeskin, Mark Maloy and Peter Falcier) and UMass Extension (Laurie Sanders, Kasey Rolih, Scott Jackson). UMass Extension worked with community members and wrote the document, while staff at the Berkshire Regional Planning Commission were responsible for updating and compiling GIS maps. The principal members of the community involved were: Michele Miller, John Sylbert, Muriel, Fred Chapman, Claudia Weldon, Storrs Olds, and Joyce Scheffey.

This Open Space and Recreation Plan is an advisory document that will help guide and inform the actions of local officials. Upon approval by the state's Division of Conservation Services, our town will be eligible to apply for state grants to help cover the costs of protecting land for conservation and recreational use. For Monterey, the reimbursement rate is 52% (up to $250,000).

In the fall of 2002 the Selectboard sent a questionnaire to each residence, asking for input on topics ranging from affordable housing and transportation to open space and recreation. 36% (268/742) of those surveyed responded. With respect to open space and recreation, the responses re-affirmed those from the town's 1990 Open Space & Recreation plan—Monterey residents care deeply about protecting the town's rural character and its natural resources (See Appendix 1).

Three public meetings were held to discuss the OSRP (12/02, 2/03, 11/03). Fifty-seven people attended a meeting that showcased a new approach to prioritizing land for protection developed by the University of Massachusetts. Attendance at other meetings ranged from 4-23 and included the members of the Open Space Committee as well as interested town residents. UMass Extension also gave a presentation to the Monterey Preservation Land Trust in September, at which 28 people attended. In November, 23 Monterey residents attended a public meeting and

B. History of the Community

Settled in 1739 as part of an effort to development townships, Monterey was part of Tyringham until 1847. The original town center was situated in the hills not far from the Bidwell House and Parade Grounds in Monterey. The name Monterey was chosen by patriotic residents who named the town in honor of a battle in the Mexican-American War. At first Monterey's economy was based on agricultural activities. Later when the town center moved to the valley of the Konkapot, manufacturing became a more important component. Among the town's small factories were cotton mills, two rat-trap factories, a gristmill, a comb factory, and a paper mill. During the next fifty years, regional and national events led to significant changes in town. In the mid-1800s when the railroad tracks were laid to the north in Lee, many of Monterey's small businesses moved or went bust. Around the same time, families and young people were lured away by the California gold rush, the opening of fertile land in the Mid-West, and the appeal of city life promised by the Industrial Revolution. What replaced industry and agriculture was tourism. In 1894 the first wave of summer cottages were built along the south shore of Lake Garfield. With the formation of Hepzibah Heights, New England Keswick and the Berkshire Art School in the early 1900s, people sought out Monterey as a summer retreat. Today summer visitors continue to play a large role in the town's economy and character.

Among the town's significant historic resources are the old town center and parade grounds (*photo right*), the present town center (including the Congregational Church, Old Parsonage, General Store, Library), our five cemeteries and several homes (Tryon teahouse, Bidwell House and the Edith Wilson house). New England Keswick, a private faith-based camp and retreat, includes several older buildings; the facility has been used as a religious retreat center since the 1920s.

C. Population Characteristics

Monterey's population has fluctuated over the years. By 1885, nearly 40 years after separating from Tyringham, 571 "living souls" made their home here. Over the next 40 years, that number steadily declined to a low in 1920 of 305. Since then the population has risen gradually and steadily with only a slight dip in the mid-1990's. According to the 2000 Federal Census, Monterey's population included 934 permanent residents. The average age is 42.7 years (higher than 1980 when the average age was 33.3 years). During the last 20 years the number of residents over 65 has increased from 120 (14.7%) to 154 (16.5%) in 2000. The town's year round population is likely to increase as many seasonal residents intend to live in Monterey full-time after retirement.

According to the US Census (2000), the average family income in Monterey is $49,750. Many residents work in Great Barrington, Pittsfield or many people are willing to commute even further for the opportunity of living in the rural hilltowns. Of town residents, approximately 15% are self-employed and 5% are involved in agriculture, a figure well-above the state and county

Drinking Water Supplies: Most homes in Monterey rely on private wells, but three small private water supply companies provide drinking water for more densely developed areas:

- The *Monterey Water Company* serves approximately 50 households and businesses in the village center. All users served by the Company are required to own one share of stock and each user has a single vote in matters of business. The water for the Village comes from several springs in the hills off Sandisfield Road and is piped to users. State law requires the water be chlorinated for public health and safety, its quality be tested monthly and a chemical analysis conducted twice a year.
- The *Aquarius Water Company* and *Schwab Well Head* are two smaller private water companies that serve a number of houses and cottages at the western end of Lake Garfield. These companies are also required to meet state standards for water testing and safety.

Waste Water: All residential and commercial buildings in town have their own septic systems, with the exception of the Gould Farm. This residential non-profit operates small, DEP-approved wastewater ponds to treat their waste.

Long-Term Development Patterns

Monterey is divided into three primary zoning districts: Agricultural/Residential, Lakeshore, and Business (**See Map 2: Zoning Map**). Beyond these, the Town has a Floodplain and Stream and Pond Protection by-law that require special permits for development near these areas and a Wireless Telecommunications Overlay District that includes all land that is within a ¼ mile radius of Mt. Wilcox.

Most of the land area in Monterey is zoned agricultural/ residential, which allows for single family residential as well as multi-family residential by special permit. The Lakeshore District around Lake Garfield requires lower density residential development when the slope exceeds 15% (*see Table 1*); this by-law provision was adopted to help maintain the lake's water quality (erosion, fertilizer runoff, etc). The business district permits by-right for all uses allowed by-right or by special permit in the agricultural/residential district, except for multi-family housing. It requires only ¼ acre and 100-feet of road frontage.

Table 1: Density Regulations

District	**Minimum Lot Size (sq. Ft)**	**Minimum Frontage**	**Maximum Lot Coverage**	**Maximum Building Height**
Agricultural /Residential				
Single Family	2 acres	200'		
Two family	5 acres	300'		
Lakeshore: Single Family Only				
Average slope >12%				
12%- 15%	2 acres	200'		
<15%	4 acres	300'		
	6 acres	400'		
Business	10,890	100'	30%	35'

the rocks of the Berkshire Plateau and Hills. Gneiss is the major underlying bedrock type in Monterey, although small amounts of dolomite and marble outcroppings and intrusions occur as well. Other major rock types in our region are named the Dalton and Cheshire Formation quartzites, the Stockbridge formation limestone and marble, and the Walloomsac Formation schist. The hills we see today are the eroded cores of what were once massive mountains. These are capped by the more erosion-resistant gneisses and schists, while the lower slopes and valley floors may contain the softer, more easily eroded carbonaceous marble and limestones.

A series of continental glaciations during the last two million years represent the last major events to shape the landscape. Glacial action modified, but did not change the basic topography of New England. Instead the mountains became more rounded and the valleys more U-shaped. In Monterey most of the surficial deposits we see are the result of the last continental glacier. More recent deposits were laid down by streams and rivers. When the glaciers retreated from our region some 12,000 years ago, they left behind vast quantities of sands, silts, rocks, and boulders that had long been frozen within the ice. Some of this material was simply laid down by the melting glacier (unstratified), while others were sorted by water (stratified).

Unstratified Deposits

This unsorted mix is a compact, but random assortment of silt, sand, clay, gravel, rocks, and boulders. It is commonly called till and covers most of Monterey. Because it lacks large pore spaces, till is incapable of storing large quantities of groundwater (wells in till usually have low production rates) and it is often unable to adequately treat septic system effluent. This is especially true if the effluent intercepts a lens of highly compressed till known as a hardpan layer, causing the effluent to "sheet off" down gradient into the nearest wetland, stream or shallow drinking water well.

Stratified Deposits

Stratified deposits represent less than 10% of Monterey's land surface. Two types occur in Monterey: glacio-fluvial deposits and recent alluvium. *Glacio-fluvial deposits* consist of silt, sand, and/or gravels that were sorted by glacial meltwater. Most of it occurs in the southwest section of town, where thicknesses extend up to 250 feet. *Recent alluvium* occurs along existing rivers and streams and consists of sediments that were deposited after the glacier's departure.

In spite of the small area covered by stratified drift, it plays an important role in groundwater recharge. Water can infiltrate the sands and gravels and form aquifers. By storing water, these deposits also help to maintain base flows in streams during periods of drought. They are valued for their sand and gravel, and because they are typically flat and have good percolation rates for septic systems, they are often favored for housing development. However problems can occur when the density of septic systems is high and groundwater is close to the surface. In these situations effluent can pass through the sands too quickly, causing the contamination of nearby water resources—both above and below ground. This may be happening at some properties on Lake Buel. Years ago investigators for the Route 23 Bypass study recommended that private well water be treated to ensure its

C. Water Resources

Precipitation falling in Monterey flows primarily into Housatonic River watershed (17,137 acres; 99%). Only 1% flows into the Farmington River/Connecticut River (215 acres) watershed (**Map 5: Water Resources**). The Farmington River Watershed, based in Simsbury, Connecticut, is interested in protecting the entire watershed, but most of its efforts on biodiversity assessments, water quality and quantity, trails and land protection, have been based in Connecticut. The Housatonic Watershed Association has broad interests in water quality, but has focused much of its energy on issues related to PCB contamination and clean-up along the mainstem in Pittsfield, Lenox and Lee.

Surface Water

Rivers & Streams: The **Konkapot River** watershed, a sub-watershed of the Housatonic, drains most of Monterey. Named after a Mahican chief, the Konkapot is known throughout western Massachusetts as an outstanding trout stream with cold, clear waters. During the mid-1800s its waters were used to power more than a dozen small factories that produced a range of goods—from paper and cloth to powder, wooden ware, and carriages.

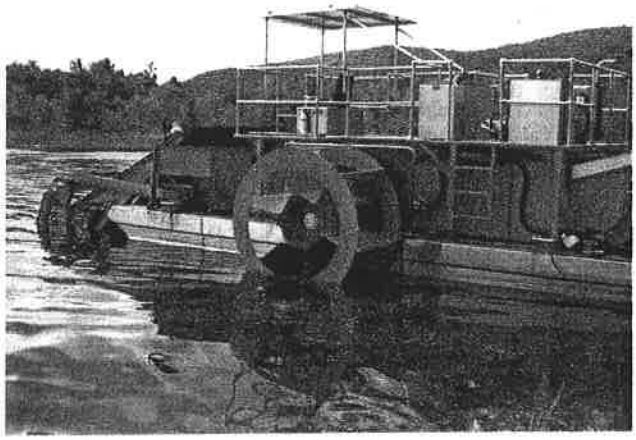
The Konkapot begins at the confluence of Lake Garfield, Brewer Pond, and Loom Brook, which drains Beartown State Forest. From here, it flows south, crossing Route 23 at Green and Bidwell Parks, then turns west and parallels the state road. Along its path the Konkapot is fed by an unnamed stream from Palmer (Fargo) Pond, Swann Brook, and Rawson Brook. After its waters are joined by Rawson Brook, the Konkapot turns south and parallels Hatchery River Road, where it cascades through a rocky ravine (*photo right*). Below the falls is a broad pool, used informally for swimming and picnicking. From here the river flows south, joining the waters leaving Lake Buel, and then winds further south through New Marlborough and into Connecticut. Ultimately, it loops back to the north and enters the Housatonic River in Ashley Falls, Massachusetts. Four properties are protected along its length: an APR, 2 small, town-owned parcels and a property owned by the Monterey Preservation Land Trust.

Rawson Brook, the Konkapot's largest tributary, begins in the forested hills of New Marlborough. From the New Marlborough line, it leaves a beaver pond and rushes down a rocky channel until near New Marlborough Road, the land flattens out and the Brook meanders through a shrub-swamp/beaver pond. At this point it is joined by a clear, sandy bottomed stream known as Harmon Brook. **Harmon Brook** begins in New Marlborough and after a

Lake Garfield was first called 12-Mile Pond for its distance from Sheffield, then Brewer Pond (after a large family who lived on the north shore). In 1881 it was renamed Lake Garfield, for the country's then- President, James Garfield, who had spent some of his boyhood visiting relatives in town near the lake. The lake, considered one of Berkshire County's most beautiful, is a natural pond that was dammed in the mid-1800s to generate waterpower. It is linked to Brewer Pond, which was created in 1972 when a new dam was built. Together the two water bodies cover 272 acres. The maximum depth of the lake is 31 feet, with the deepest areas occurring on the north side. The town maintains a small sandy beach for residents at the western edge. Alternative public access is still being discussed.

The lake is eutrophic, meaning that it is aging and tends to be overly productive of weeds and algae. High phosphorus levels may be due to leachate from septic and gray water systems around the lake. It also has at least one known rare species as well as a small population of the invasive Eurasian Milfoil (Melissa Dow-Cullina, pers. obs. 2002). Currently, the Eurasian milfoil does not pose a threat as present, but it is an aggressive invader that can compromise a lake's recreational and water quality values. Purple loosestrife, however, is a problem, and the Lake Garfield Association plans to introduce leaf-mining beetles (*Galerucella calamariensis* and *G. pusilla*) to control it and reduce its spread.

Lake Buel, about 20% of which is in New Marlborough, covers approximately 196 acres. It has a deep basin at each end and is connected by a shallow area in the middle. Originally half its present size, Buel was dammed in 19XX and now has a maximum depth of 46 feet. Like Lake Garfield, its waters become stratified into warm and cold layers and it is eutrophic. Buel, however, suffers from thick weed growth. This is attributable to a combination of factors: (1) a thick layer of peat and muck; (2) a higher than expected alkalinity level; and (3) high nutrient levels from leachate and gray water runoff from surrounding cottages. Of its weeds, most troublesome is Eurasian Milfoil. The local lake association controls milfoil each summer by using a mechanical weed harvester (*photo right*). To date, Lake Buel has not been drawn down. Because it meets the state definition for a "great pond" (i.e. a natural lake greater than 10 acres), public access is available at the state boat ramp off Route 57.



Ponds: Many ponds occur in Monterey, the largest of which were artificially created. Royal Pond, Stedman Pond (New England Keswick), Steadman Pond (on the border of Monterey), Stevens (or Schweitzer) Pond, Palmer (Fargo) Pond and Benedict Pond are all manmade and privately owned. Natural ponds in town are much smaller and were created primarily by beavers. Noteworthy among the natural ponds is one located near the intersection of Art School and Tyringham Roads; for the last several years great blue herons have nested here. This species

the northeast edge of town. Some of the most scenic are those around Fargo Pond, the large beaver pond in Beartown State Forest, the wetland near the boundary of Otis, Tyringham, and Monterey, and the shallow marsh on Chestnut Hill. In the recent questionnaire, 82% of respondents felt that the preservation and conservation of wetland areas was important-very important.

D. Vegetation

Vegetation patterns in Monterey reflect the town's geologic history, past and present land use, and its abundance of water. In areas where gneissic bedrock is near the surface, the soils tend to be acidic and hemlock, mountain laurel, witch-hazel and other acid-tolerant plant species are common. In areas where limestone, marble or schists occur, the soils are neutral or basic, with higher levels of calcium and magnesium, two essential plant nutrients. Because of these soil conditions, other essential nutrients like nitrogen and phosphorus are more available to plants. One consequence is greater diversity of both plants and animals. In rich woods settings, sugar maple, yellow birch, basswood, striped maple, mountain maple, hobblebush, and yew are common and there is a lush layer of ferns and wildflowers.

Natural Communities: Forests & Wetlands

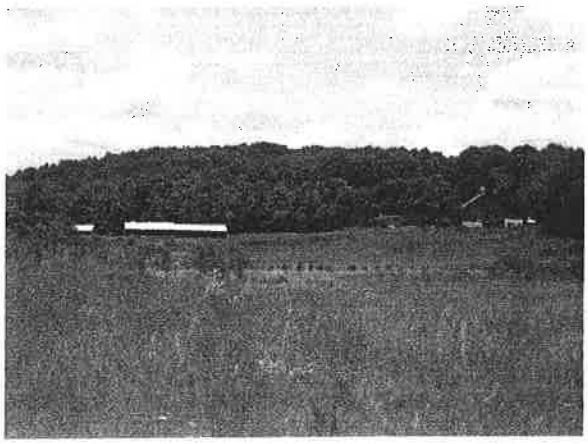
In 2000 the University of Massachusetts-Amherst began a project to identify all the areas within the Housatonic watershed of Massachusetts that were expected to be most important for biodiversity. UMass researchers began by identifying and mapping the watershed's major natural communities (*see text box right*), consistent with the Natural Heritage & Endangered Species Program (NHESP) classification (Swain and Kearsley 2000). They accomplished this by using a combination of field survey, remote sensing data (soils, lithology, satellite images) and aerial photo interpretation. In Monterey, developed land (roads, residential, business) currently accounts for 6.5% of the town, while the remainder is divided into 17 different natural community types (arranged below from most common to least):

been protected by the Monterey Land Trust, while the land to the north is privately owned and mowed. Wellman Road has two farms: **Tall Pine Farm** and **Turkeybush Farm.** Tall Pine Farm has lain fallow since the death of Robert Thieriot, who used to grow vegetables. Turkeybush Farm, half of which is under a conservation easement, is used by the Tryon's for hay. The marshy wetland at Turkeybush Farm historically had a breeding pair of American Bitterns (Special Concern), and the fields on and around Turkeybush Farm are important nesting areas for bobolinks. The Tall Pine Farm includes a stretch of the Konkapot River, while Turkeybush includes a meandering stretch of Rawson Brook.

Area 2. South of Wellman Road & New Marlborough Road.
Rawson Brook flows through this area. **Lowland Farm** owned by Barbara and Richard Tryon was a dairy farm until the 1980s. The Tryons now grow hay, corn, raspberries and Christmas trees and produce maple syrup. **Rawson Brook Farm** on New Marlborough Road is owned by Susan Sellew. The farm produces goat cheese and covers more than 100 acres, of which about 12 acres are actively used for farming. This farm, which is open to the public, is considering participation in the Farm Viability Program; the land is enrolled in Chapter 61. Both farms have considerable brook frontage and provide valuable open space. Further east on New Marlborough Road is **The Ravine Falls Farm Trust**, owned by the Scheffey family. It is not actively farmed, but the old fields are kept cleared. These old fields have been mowed for more than 60 years.

Area 3. Corashire Road and Blue Hill Roads, north and south of Route 23.
Woodburn Farm, south of Route 23, has been protected through the APR program. The 10-acre pasture owned by the **Webb's** is an important scenic area along Route 23; it is used by horses. The **Bradley** (118 acres), **Thompson** (? Acres) and **Malowista** (75 acres) farms lie further along Blue Hill Road, which is main gateway to Beartown Forest and Benedict Pond. Some of the fields are hayed by local farmers and the high views and surrounding open space are valued by many residents.

Area 4. Gould Road, Route 23 - Barnum Flats Area.
This is among the most significant open land in Monterey because it lies above the town's largest aquifer. Three farms are located here: **Enoe** (157 acres), **Phillips** (82 acres) and **Gould** (600 acres). The Gould Farm is now the largest farm in town. Barnum Flats is the first significant open space in the approach to town from the west with significant views of Dry Hill to the south and bordered by Swann Brook. This area is the most visible open space in town and its preservation is of great concern to town residents.



The Tryon Farm.

Area 5. Sandisfield Road. The largest farm along Sandisfield Road is owned by Warren **Thompson**, a descendant of one of the town's earliest farming families. Thompson raises farm animals and chickens for eggs. In addition to fields, the farm includes woods and wetlands.

Of special note are the 25 *potential* vernal pools that were mapped by the Natural Heritage & Endangered Species Program (Burne 2001). NHESP staff identified potential vernal pools from 1:12,000 scale, color infrared, leaf-off aerial photographs flown between late March and Early May. Statewide coverage included photos taken in 2000 for towns in Berkshire County. Vernal pools are small bodies of water that hold water during the fall, winter and spring but dry out during the summer. Because of this lack of water, fish can't survive and over time, many species of salamanders and frogs have evolved to breed exclusively in these fish-free environments. Many other animals--fairy shrimp, fingernail clams, various beetles and many invertebrate species--also depend on vernal pools, either throughout their life cycle or during the breeding phase. Vernal pools are also used transitionally by many larger animals (wood ducks, raccoons, etc), but they are especially important for many of the state's rarest reptiles and amphibians. Because of their small size, their importance as wildlife habitat has historically been overlooked. Only during the last 20 years have biologists recognized their ecological significance. Aside from biological values, vernal pools help prevent flooding by storing water and play a role in recharging groundwater.

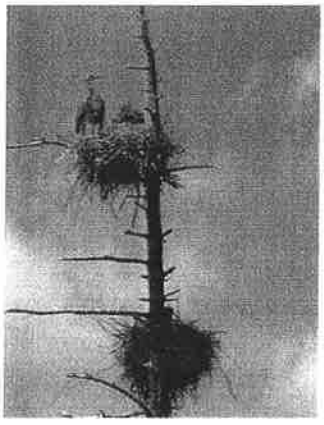
To help safeguard vernal pools, the state's natural heritage and endangered species program has developed a process to certify vernal pools. The pools must meet strict criteria for inclusion and all the documents are available at **http://www.state.ma.us/dfwele/dfw/nhesp/nhvernal.htm**. At present, only two vernal pools in Monterey have been certified.

Rare Animal Species

At present, eight rare animal species have been documented in Monterey (Table 6).

	Common Name	Scientific Name	Status	Last Seen
Mammal	Long-tailed Shrew	*Sorex dispar*	SC	1951
	Water Shrew	*Sorex palustris*	SC	1953
Bird	American Bittern	*Botaurus lentiginosus*	E	1991
Reptile	Wood Turtle	*Clemmys insculpta*	SC	2003
Salamander	Spring Salamander	*Gyrinophilus porphyriticus*	SC	1987
Fish	Bridle Shiner	*Notropis bifrenatus*	SC	1978
Insect	Twelve-spotted Tiger Beetle	*Cicindela duodecimguttata*	SC	1965
	Skillet Clubtail Dragonfly	*Stylurus scudderi*	E	2003

Table 6. Rare and endangered species historically documented in Monterey.



Great blue herons, a species tracked by state biologists, have nested in Monterey for several years in the pond near Art School Road. In 2003 3 nests produced with a total of 8 young..

F. Biomap, Biodiversity Value & Monterey

In 2001 the Massachusetts Natural Heritage & Endangered Species Program developed a map identifying areas that represents key habitat for the state's rare species. The project, known as BioMap, focused on areas where rare plants, animals, and natural communities have been

The final biodiversity value reflects the unique way each community type interacts with the structure of the landscape.

CAPS produces a simplified representation, a model, of the landscape. It is a useful tool for conservation planning at a coarse scale—the town, watershed, or ecoregional level. Although the predictions of biodiversity value it calculates are likely to be true in general, some exceptions are noted. For example large intact blocks of forest may occur where many species have been lost due to past land use practices. We also know that many species are habitat generalists and some rare species thrive in small patches of certain forest types.

In Monterey, the areas predicted to have the highest biodiversity were the Beartown State Forest, the wetlands along Rawson Brook, the Palmer (Fargo) Pond area, the uplands north of Hunger Mountain and in the Dry Hill area, where historical, anecdotal accounts of state Endangered timber rattlesnakes. **Map 10** shows the areas predicted through CAPS to have the highest biodiversity; **Map 11** shows the intersection of CAPs and the existing protected open space.

BioMap and CAPS as Complimentary Planning Tools

BioMap and CAPS are complimentary tools for conservation planning. BioMap Core habitat identifies estimated habitat necessary to protect known records of rare species and occurrences of exemplary natural communities: it is an excellent tool for protecting what we already know about the landscape. CAPS is based entirely on modeling of landscape structure and on ecological principles for many species and allows for the assessment of the entire landscape, including areas not yet inventoried: CAPS identifies the 'hidden biodiversity' of the landscape. BioMap's Supporting Natural Landscape is a coarse-filter method generally similar in approach to CAPS, but uses a different set of metrics, is not natural community-based, and does not allow for the prioritization of areas within large blocks. For more information about CAPS visit the UMass website: **http://www.umass.edu/landeco/research/caps/caps.html**

By combining BioMap with the UMass Biodiversity Project gives we have the best tools available to prioritize and protect based on their ecological significance. **Map 12** shows the intersection between BioMap, CAPS, Vernal Pools and Protected Open Space.

Other areas of ecological interest noted in Monterey's 1990 Open Space & Recreation Plan include Chestnut Hill, Dry Hill, Konkapot River, and grasslands at Barnum Flats, above the Old Firehouse, along New Marlborough and Wellman Roads.

G. Scenic & Recreational Features, Unique Environments & Historic Resources

Scenic roads, views and other unusual natural areas contribute to Monterey's rural charm and identity **(See Map 13: Features)**. There are many places in town with impressive vistas. Tyringham Road includes two views that are especially pleasing: (1) a long view of rolling, wooded mountains dotted by several small white houses, and (2) a view of Stedman Pond, set in the middle of a pasture and flanked by the mountain. Another beautiful vista is from the highest point of Blue Hill Road; just above the Bradley Farm is an unspoiled view of farms and rolling hills. Brett Road, just north of Beartown State forest Headquarters, also offers an outstanding view, in this case of fields and Butternut Basin. Less familiar to many residents is the view from

For more active recreation, Monterey residents can swim, fish and/or boat at Lake Garfield, Lake Buel,or Benedict Pond. They can also play ball at Greene Park and at the school Playgrounds. Recreation at Greene Park includes a basketball court, baseball diamond, and football field as well as a playground for young children. The school playground is generally used only during school hours.

Geologic Features

One of the most unusual geologic features in town is the sculptured marble ravine along the Konkapot River near River Road. Small potholes, carved by the powerful mix of water, sand and gravels, pocket the rocks and the water cascades past. In other areas of town, there are impressive rock outcrops, which warrant further study—not only out of geologic curiosity, but as habitats for unusual plants and animals. Among these is Dry Hill, on the border with New Marlborough. The Trustees of Reservations owns portions of Dry Hill in New Marlborough. The area is purportedly home to timber rattlesnakes, an endangered species in Massachusetts. This is possible, but no photograph or specimen has ever been confirmed. If rattlesnakes are present, they need a winter denning area (known as hibernaculum). Typically this is a cavity in the rocks, where all the snakes in the area enter and get below frostline. The Trustees of Reservations intends to study this area more closely in the coming years.

Cultural & Historic Areas

Several of Monterey's more significant cultural and historic resources (e.g. parade grounds, Bidwell House) have already been protected, but many others--such as the locations of historic mills and old stone foundations--are less well-known and still need to be mapped and documented. Our town's historic resources include:

- Tryon teahouse
- Present town center
- Old town center
- Congregational church
- General Store and surrounding area
- Library
- Old Parsonage
- The Manse and its grounds
- Bidwell House

The old center, 1 ½ miles northwest of the village, includes many important historical features: the Parade Common where the militia drilled; the Old Center Cemetery; the site of the Rev. John Avery House (1789); the site of the John Chadwick House (1760); and the site of the first church (1750). Two miles north along the Art School Road is "Deep Woods Manse" (1750), the home of the first minister, the Reverend Adonijah Bidwell House. Now known as the Bidwell House Museum, it is open to visitors and sponsors many programs. On Hunger Mountain Road is the Old Garfield Place (Circa 1750), where President James A. Garfield, for whom Lake Garfield is named, spent part of his boyhood.

Other notable historic buildings in Monterey include: the Julius Miner House, a double wing

which will maintain the land in its natural state.

At present, Monterey has no funding program or plan for acquiring new parcels. It also does not have a plan or fund for enhancing its protected holdings.

A. Private Parcels

As of December 2003, X parcels in Monterey are enrolled in the Chapter 61 property. These include Y agricultural lands (Chapter 61A), Z forest lands (Chapter 61B) and Q in the general Chapter 61 program. Of those in agriculture, X fall within prime agricultural land. Of the forest properties, Y overlap with areas identified through BioMap and CAPS as priority areas.

In addition, 11 properties in town are privately owned but protected through agricultural or conservation restrictions. The 180-acre Fenn Farm along River Road, 52 acres of the Slater Farm on the Monterey-Tyringham line and 20 acres of the Smith/Markwood Farm have been protected through Massachusetts' Agricultural Preservation Restriction (APR) program. Conservation restrictions have been placed on 998 acres in town and are held by the Berkshire Natural Resources Council and Monterey Preservation Land Trust.

The Gould Farm has been approved to enter the APR program, and is currently awaiting final paperwork. The Gould Farm is a private, non-profit psychiatric facility at which the staff and residents live and work on the farm, tending to all the tasks necessary to maintain the grounds and facilities. Aside from agricultural fields, the farm also owns wetlands and forests, and maintains a network of hiking trails.

New England Keswick is a 400-acre, private holding in Monterey. It is a non-denominational evangelical Christian youth camp and retreat center that began in 1941. The property includes Stedman pond along with a mix of open fields and woodlands. Prior to its use by New England Keswick, the property was owned by the Sudan Interior Mission, which trained its missionaries here from 1929 to 1941. Before this the land was a privately-owned farm, with its use dating back to about 1780. The name "Keswick" was taken from an annual Bible convention that began in 1875 in Keswick, England and grew into the "Keswick Movement." In 2003 *New England Keswick* acquired neighboring Hephzibah Heights (pronounced "Hep-see-bah"). This 200-acre property had been owned since 1928 by a New York City-based Christian ministry known as Hephzibah House. The Hephizbah property includes cottages to accommodate guests, a dining hall, a lounge with a stone fireplace, a chapel and extensive forest land.

B. Public & Non-Profit Parcels

- The Town of Monterey owns two cemeteries, a public beach at the western end of Lake Garfield, Bidwell Park, the Edith Wilson homestead, Greene Park and a small holding along the Konkapot on River Road. Eleven acres of open space exists behind the town offices. The library and school account for another 2 acres and the Parade Grounds include another acre. The old landfill site is 23 acres. Along Route 23 the town also owns a 4-acre field, which it leases to a local farmer.

- The Department of Conservation Resources (formerly the Department of Environmental

3. Town Beach - Lake District
   size: 13.69 acres (with Brewer Pond)
   ownership: Town
   management: Park Commission
   comments: This property includes a sandy beach, a grassy area and a dock. It is very heavily used in the summer and only open to town residents. Brewer Pond is adjacent to Lake Garfield. Handicapped accessible.

4. Parade Grounds Agricultural/Residential
   size: 1.2
   ownership: Town
   management: Park Commission
   comments: This attractive area was the historic town green but is unused. Handicapped accessible.

5. Monterey School playground - Business District
   size: 9,660 square feet (approx. ¼ acre)
   ownership: Town
   management: Southern Berkshire Regional School District
   comments: A small playground. Handicapped accessible.

6. Library yard - Business District
   size: 1.2 acres
   ownership: Town
   management: Library Trustees
   comments: A small grassy spot next to the Konkapot River in the center of town. A bridge leads to Bidwell Park.

7. Land near Firehouse - Agricultural/Residential
   size: 10.78 acres
   ownership: Town
   management: not currently managed
   comments: Acquired in ?? for a town hall.

   Landfill??
   River Road parcel??
   Cemeteries??
   Edith Wilson??

8. Beartown State Forest
   size: 4,794 acres
   ownership: MA Department of Environmental Management
   comments: Three separate areas are owned by the State in the northern half of Monterey: (a) a 44-acre parcel; (b) a 178-acre parcel, and (c) is 4,572 acres. There are extensive forests, trails, a swimming area open to the public at Benedict Pond, picnicking and camping areas.

the tools that the Open Space Committee will use to prioritize lands for protection.
Beyond protection, community members have made recommendations for a new trail that links the town center with Lake Garfield, either along Tyringham Road or along the Konkapot. Another trail connection that has been proposed by BRPC is a connection along Route 23 between the Appalachian Trail and the town center as many through-hikers have supplies and mail sent to the Monterey post office. As part of the Community Development Planning process, BRPC also evaluated the town for a pedestrian walking/bike path. Specific recommendations include:

- Bicycling signage, shoulder upgrades along Route 23
- Bicycling signage, pavement marking upgrades along Tyringham Road
- Bike racks in center of town, at Lake Garfield beach
- Other off-road trail networks, linking particularly with Beartown State Forest

Residents who responded to the recent survey felt strongly about preserving historic areas (81% rated this as important – very important), farmland and wooded areas (85%) and 57 percent were strongly in favor of establishing a land bank fund to preserve open space. With respect to protecting open space, the combined analysis of BioMap and CAPS gives Monterey the best-to-date available tool for quantitatively evaluating land based on its ecological merits. This analysis can be taken one step further. Each type of natural community can be evaluated with respect to how much is protected versus how abundant it is in town (**Table 7**). Of the 38% of protected open space, the majority is mixed transitional forest. Northern hardwoods, coniferous forested wetlands, and ponds are natural community types that are well-represented in the town's protected lands. Old fields, shrub swamps, and emergent marsh, however, are under-represented given their overall abundance in the community. Future protection efforts may want to focus on these under-represented and rarer community types.

B. Management Needs

Like all towns, Monterey's management needs are multiple and varied.

Recreation:

- Maintain recreation-related buildings, ballfields, Bidwell Park, trails and the town beach.
- Enhance recreational opportunities for residents and visitors through the creation of new trails (pedestrian & bicycling).
- Improving accessibility to town-owned areas for all (ADA requirements).

Historic

- Maintain town-owned historic resources (cemeteries, buildings).
- Ensure un-protected historic features are not inadvertently destroyed.
- Develop a plan of action for the historic Edith Wilson house and property.

Water Quality

- Water quality issues have been a priority for years in Monterey. Future educational efforts are outlined in our goals and objectives section to help reduce

Table 7				
Class in Monterey	Town_acres	% in town	% in Protected Open Space in _town	% of community type in BioMap core_town
High-intensity urban	37.7	0.2		
Low-intensity urban	35.4	0.2	8.3	0.6
High-density residential	100.5	0.6		
Low-density residential	452.0	2.6	3.9	5.4
Agricultural/Managed open	590.1	3.4	17.4	17.9
Medium Dam (50-1000 acre-ft or 15-40 ft high)	0.3	0	39.7	40
Small Dam (15-50 acre-ft or 6-15 ft high)	1.2	0		
Non-jurisdictional or Unknown Dam (<15 acre-ft or <6 ft high)	0.8	0		
Class 3 road (secondary highway)	110.3	0.6	4.8	4.6
Class 4 road (light duty road)	234.6	1.4	17.2	12
Class 5 road (unpaved)	157.9	0.9	19.3	6.4
Northern hardwood forest	6336.1	36.6	41.9	16.9
Temperate conifer forest	2806.5	16.2	31.3	25.4
Mixed Transitional forest	4477.8	25.9	49.2	10.4
Deciduous/mixed forested wetland	117.7	0.7	26.0	44.1
Coniferous forested wetland	111.0	0.6	40.2	36.7
Powerline Shrubland	18.4	0.1		
Old field	62.2	0.4	6.3	9.8
Grassland	157.7	0.9	36.2	32.3
Rocky Summits	2.9	0		
Shrub Swamp	120.5	0.7	27.5	42.5
Emergent Marsh	66.1	0.4	10.1	30.6
Streams/Rivers	34.1	0.2	22.6	66.9
High-gradient Headwater	552.7	3.2	37.4	29.5
Pond	184.3	1.1	40.3	20.5
Lake	533.7	3.1	3.7	
Vernal Pool	1.2	0	31.9	9.1

	require "linkage", or the setting aside of open space as a condition of approval. Consider tax implications and the use of cluster zoning.		
	e) Study Community Preservation Act	Selectboard, Conservation Commission	2005
	f) Update Zoning By-laws to reflect biodiversity values. For divisions of land not requiring approval, work w/ developer for best possible outcome based on biomap and biodiversity criteria.	Planning Board	2006
	g) Study logging by-laws	Planning Board, Conservation Commission, Selectboard	2007
	h) Survey and certify vernal pools	ConCom, Residents, BCC, Simon's Rock students	2004, Annual
	i) Educate landowners about conservation options and inform all stakeholders to guide impact of buildout Host workshops with TTOR for landowners. Distribute summary sheet of conservation issues pertinent to Monterey to landowners, real estate agents, etc. Have Highlands Community Booklet available at Town Hall and Library and for distribution.	Conservation Commission, Selectboard	2004, Annual
	i) Identify, map and control invasive plant species that may threaten the integrity of sensitive natural areas	Conservation Commission, local conservation organizations, BCC & Simon's Rock students	2005, Annual
4. Preserve familiar vistas, roads, gateway areas and historic sites.	a) Have highway department apply Best Management Practices for road maintenance	Highway Department, Selectboard	2004
	b) Have highway department and tree warden cut and trim trees using Best Management Practices/arboricultural techniques	Tree Warden, Highway	2004
	c) Research a lighting bylaw	Planning Board	2004
	d) Study a subdivision control law to help maintain rural criteria: ie.native plantings, screening??? driveway permits	Planning Board	2005
	e) Consider scenic roads legislation MGL 40 ch. 15, scenic road overlay district & investigate the Scenic By-Way program to access federal and state grants to acquire	Selectboard, Planning Board	2006

SECTION 11: REFERENCES

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Appendix 4: Mapped & Modeled Natural Communities

Northern hardwood forest– Upland forests dominated by any combination of sugar maple, beech, or birch and which may include several other hard species; conifers less than 25%; may include small patches of Rich Mesic Forest or Forested Seep Communities

Temperate conifer forest – upland forests dominated by any combination of hemlock, white pine, spruce, or fir but may include up to 25% hardwoods; may include the Hemlock Ravine community type.

Mixed Transitional forest – upland forests dominated by one or several oak and/or hickory species but that also include other hardwoods; conifers less than 25%; may include unusual community types such as Hickory-Hophornbeam Forest, or Yellow Oak Calcareous Forest.

Deciduous/mixed forested wetland – forested wetlands that occur on low-gradient landscapes that include a roughly 50-50 mix of hardwoods (red maple, black ash, others) and softwoods, usually hemlock or white pine, but also more rarely tamarack or spruce.

Coniferous forested wetland – conifer-dominated wetlands, including hemlock hardwood swamps, or swamps with high cover of white pine, and the more rare spruce-tamarack bogs; hardwoods not more than 25%.

Powerline Shrubland – lands in powerline rights-of-way maintained in a constant early successional habitat, usually a mix of grassland and shrubs; of conservation interest for shrubland bird species.

Old field – open land succeeding to forest, with a mixture of grasses, shrubs, and young trees; usually found on sites that have been cleared and plowed then abandoned.

Grassland – natural or human created and maintained open community dominated by grasses; maintained by mowing or grazing; of conservation interest for grassland bird community

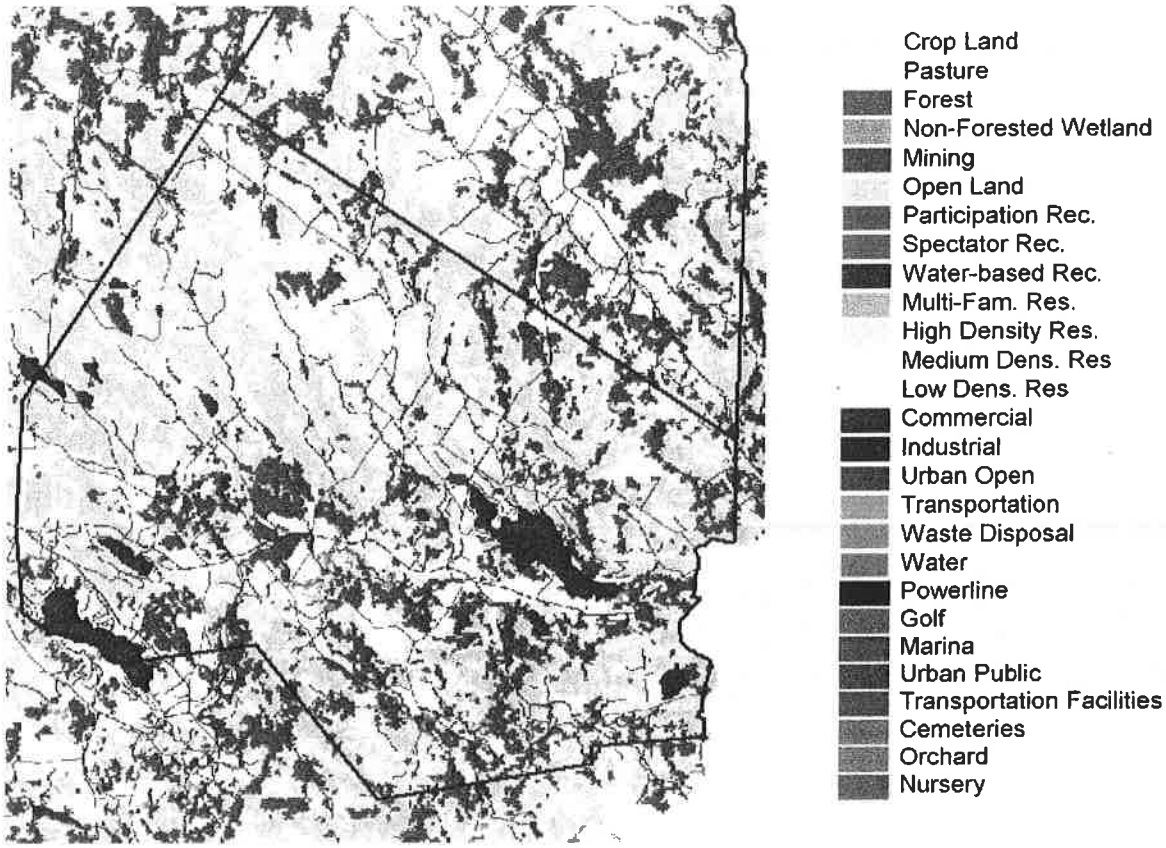
Rocky Summits – areas of discontinuous vegetation and exposed rock, including acidic bedrock outcrops or the much rarer calcareous rock outcrop communties.

Shrub Swamp – shrub-dominated wetlands on mineral or mucky soils which can be divided into several different types, including alder, button-bush, or blueberry dominated swamps; this category may also include acidic shrub fens or calcareous fens where shrubs dominate.

Emergent Marsh – grass or herbaceous-dominated wetlands that are seasonally inundated and permanently saturated; this category may include cattail or phragmites dominated wetlands, but also some of the rarer types, including calcareous fens.

Streams/Rivers
High-gradient Headwater
Pond
Lake
Vernal Pool – potential; photo interpreted

Map 7: Natural Communities



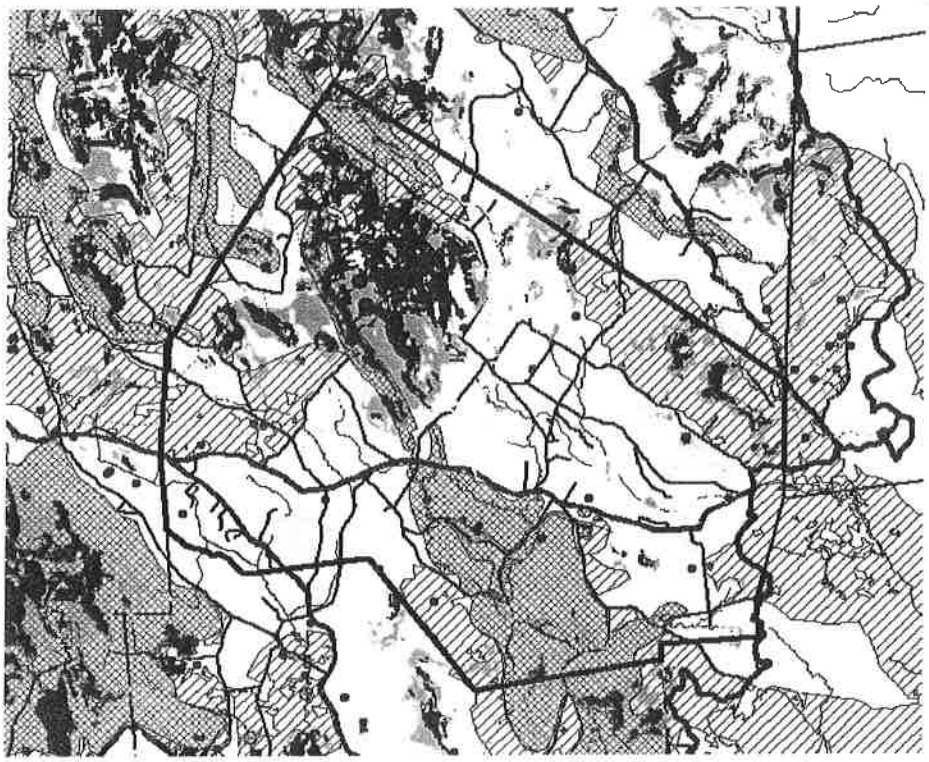
Map 8: BioMap Core & Supporting Natural Landscape

Core: Hatched

Diagonal: SNL

Map 11: CAPS and POS (pending new open space layer)

Map 12: BioMap, CAPS, vernal pools and Protected Open Space (needs updated POS layer)



Map 13: Scenic, Historic Features, Trails (needs updating to note important views, correct track of Appalachian Trail)